

← 507 bp

FIG. 2



100x



FIG. 4A

200x



FIG. 4B

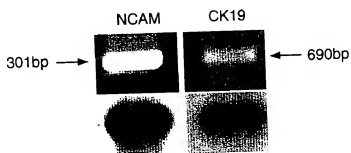


FIG. 5

108200" 51859660

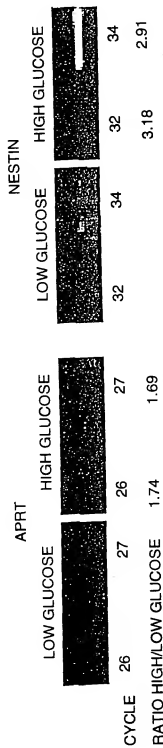


FIG. 6

# Nestin Amino Acid Sequence:

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GAR  
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PRTPEGRRLGSLLPVLSPTSLPSLPATLETVPVPAFLKNQEFLOARTPTLASTPIPT  
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QEASTGQSPEDHASLAPLSPDHSSLEAKDGESGGSRVFSICRGEGEQIWLVEKET  
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GDEEALRPLTKENQEPLRSLEDENKEAFRSLEKENQEPLKTEEDQSVIRPLETENH  
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GSSVGSLLQALSSSQRGFELESDSVSVVPWDDSLRGAVAGAPKTALETESQDSAEPSG  
SEESDPVSLEREDKVPGLPEIPSGMEDAGPGADIIGVNGQGNLEGKSHVNGVGMN  
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# Nestin Nucleotide Sequence:

BASE COUNT 1238 a 1176 c 1676 g 764 t ORIGIN 1

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gcggccctgc gtgcgcctgt tgaccaatgc tggcgggaga agcacgcggc cgagtgggcg 241  
cgggacaacc tggctgaaga gctggagggc tgggcaggcc gatgcgagca gctgcggctg 301  
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421 cgcgtggcgc acgagaggga gcgcgtcgt ctgaacgcgc aggcgtcgtg tgcctccgcg

FIG. 7A

481 ctgcccgcgc cgccccggcc tcccgcgccg gccccggagg tagaggagct ggcaaggcga  
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 601 acgtcgtcgg accagaccgc cgagcgccctg gcccggggcgg tgcaggglgc ccgcgaagtc  
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 ggaccaagaa 2881 ctggctcagg aaagccctc tggatgggt gagg'lggaaa ataatgata  
 ggcagagctg 2941 aatcaaggc agcagatgag cttaactggg aaggaggagg tggtagagca  
 gggagagctg 3001 aatgcacag aggaagctcgt gttcccagg gggggcacc

FIG. 7B

cagagaaccg tgagcccaaa 3061 gagcagagag gcctgggtga gggagccagt  
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 4741 gggagtgtc tgaggaggtc ttggcagggg gctcctgttc acc'tggcca gggctcgtt  
 4801 ctgaagtca ctacaggga agggataga ggt'ctcgtt cctcagggga ggaac //

FIG. 7C



100260-5202960

NESTIN/INSULIN



P60

FIG. 8B

NESTIN/INSULIN



E16

FIG. 8A

NESTIN/NUCLEI



P60

FIG. 8D

NESTIN/COLLAGEN IV



P60

FIG. 8C

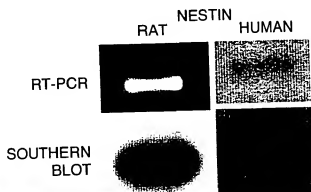


FIG. 8E

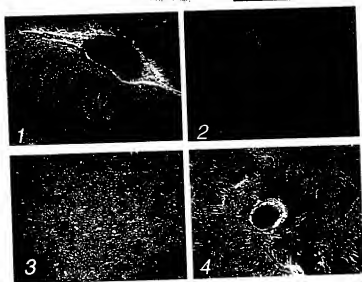


FIG. 9A

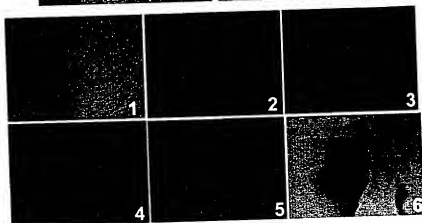


FIG. 9B

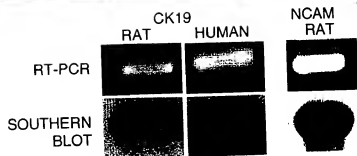


FIG. 9C

The image consists of two black and white photographs of a dark, textured surface, likely a book cover or endpaper. The top photograph shows a dark, almost black surface with several small, light-colored specks and a few faint, irregular marks. The bottom photograph shows a similar dark surface, but with more pronounced texture and some lighter, mottled areas, possibly indicating wear or discoloration. The overall appearance is that of an old, dark material.

RT-PCR

SOUTHERN  
BLOT

FIG. 10D

09983875-002601



CK19 / NESTIN



FIG. 11A

CK19 / NESTIN



FIG. 11B

NESTIN



NESTIN/NUCLEI

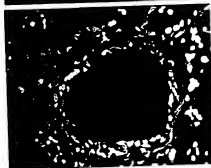
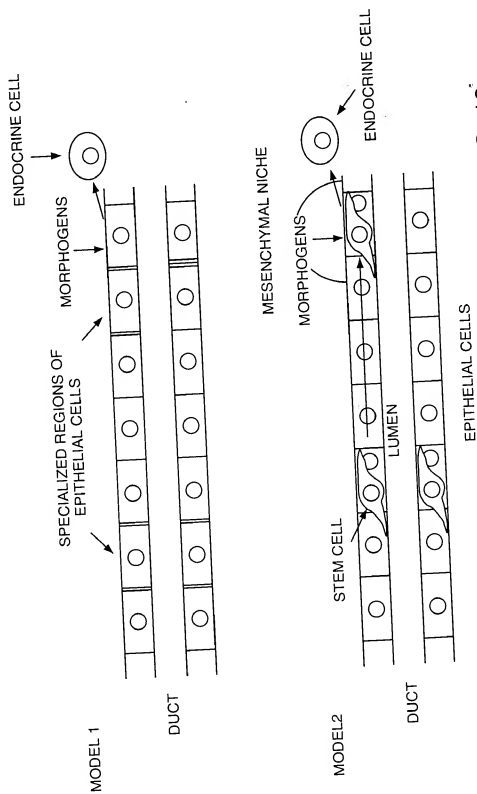


FIG. 11C

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00063975.092601



FIG. 13A

FIG. 13B

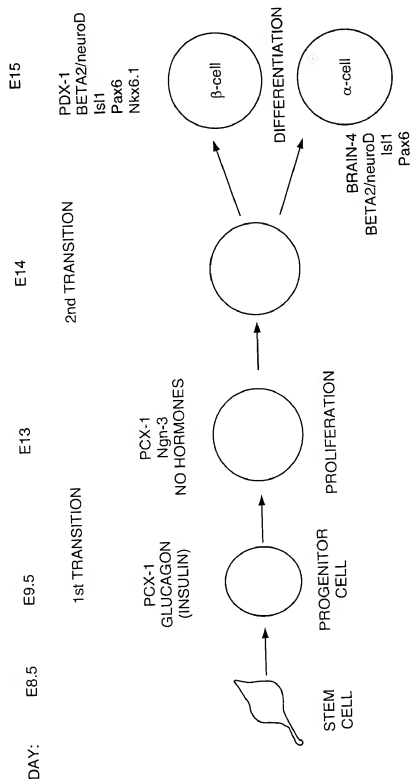


FIG. 14



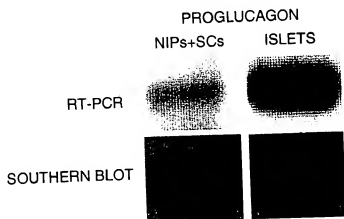


FIG. 15A

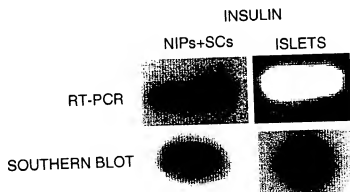


FIG. 15B

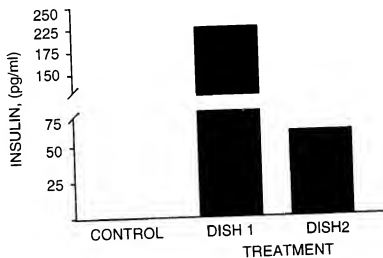


FIG. 15C

NEURO-  
ENDOCRINE

SYN



HGFR



GLUT-2



EXOCRINE

AMY



CARB



HEPATIC

TTR



HGF



E-CAD



XBP



AFP



0953875-092601

FIG. 16

Figure 17

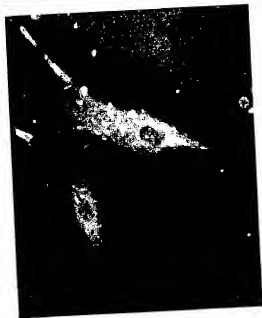
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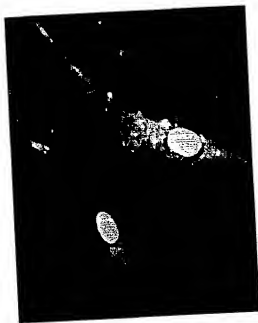
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KSWERWLEHLHIQRDSSMKPLKCPSTSSSGATAGSSMYTATCQASCS

109260\* 54689600



GLP-1R



GLP-1R/NUC



PRE-IMM



NESTIN

Figure 18A

Figure 18

B



NIPs

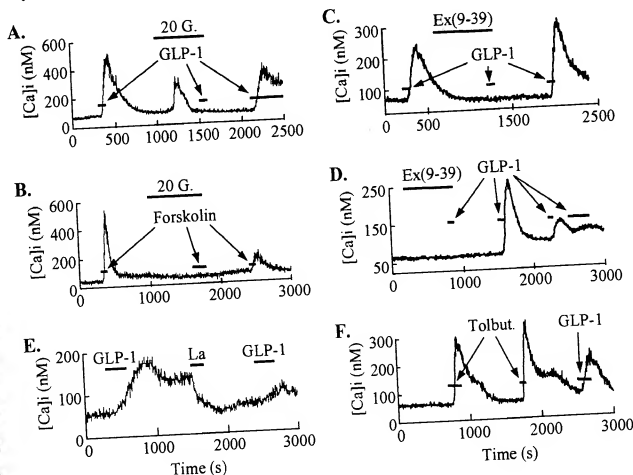


Islets

346bp

090301 090301 090301

Figure 19



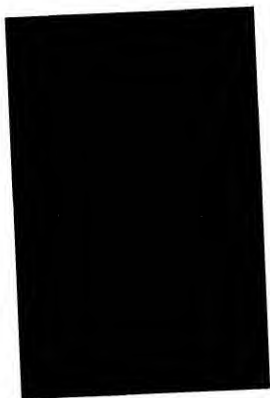
**Figure** GLP-1(7-36)amide and Tolbutamide stimulate  $[Ca^{2+}]_i$  influx in stem cells.

(A) Fura 2 loaded cells bathed in 5.6 mM glucose show a  $[Ca^{2+}]_i$  increase in response to 10 nM GLP-1. Increasing the extracellular glucose to 20 mM (20 G) also caused an increase of  $[Ca^{2+}]_i$ , but application of GLP-1 in 20 mM glucose failed to produce a  $[Ca^{2+}]_i$  response. A third application of GLP-1 on returning to 5.6 mM glucose produced a  $[Ca^{2+}]_i$  response. (B) The glucose-dependent effects of GLP-1 were reproduced by 10 mM forskolin, suggesting that  $[Ca^{2+}]_i$  elevation is cAMP-mediated. (C) The GLP-1 mediated increase of  $[Ca^{2+}]_i$  was reversibly inhibited by 10 nM exendin (9-39). This effect is not due to receptor desensitization (D) as application of GLP-1 in the presence of exendin (9-39) failed to produce a response whereas subsequent applications of GLP-1 after washout of exendin produced repeated  $[Ca^{2+}]_i$  elevations. (E) The GLP-1-mediated increase of  $[Ca^{2+}]_i$  is inhibited by 0.5 mM extracellular  $La^{3+}$ , suggesting that GLP-1 stimulates  $Ca^{2+}$  influx. (F) Stem cells bathed in 5.6 mM glucose were stimulated with 100 μM tolbutamide (Tolbut.) and respond to repeated applications with increases in  $[Ca^{2+}]_i$ . Application of 10 nM GLP-1 also stimulates an increase of  $[Ca^{2+}]_i$ , suggesting that GLP-1 acts by depolarizing the cells.

Figure 20

A

Nestin/Insulin



B

CON

GLP-1

GLP-1

Nestin/Insulin



Idx-1/Insulin

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Figure 21

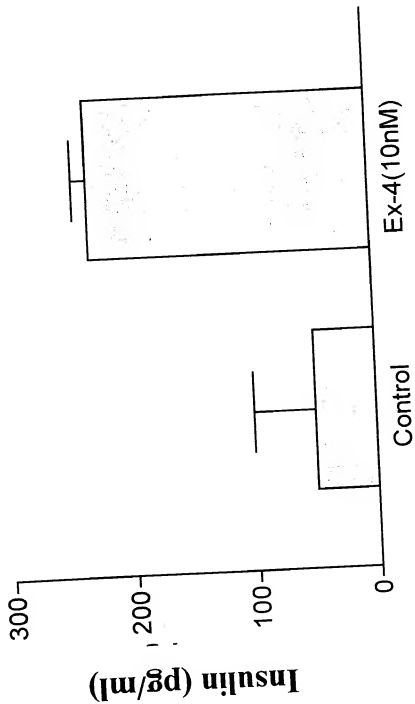
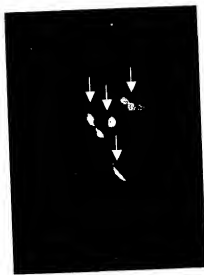




Figure 22

A

Transfected with hIDX-1 and  
incubated with GLP-1 (7-36)



B

Transfected with hIDX-1 and  
incubated with Vehicle (PBS)



Insulin/IDX